IN THE UNITED STATES DISTRICT COURT FOR THE EASTERN DISTRICT OF TEXAS MARSHALL DIVISION

FINESSE WIRELESS, LLC	§	
	§	
Plaintiff,	§	
v.	§	CASE NO. 2:21-CV-00316-JRG
	§	(Lead Case)
AT&T MOBILITY, LLC, AND	§	
	§	
CELLCO PARTNERSHIP d/b/a	§	
VERIZON WIRELESS	§	
	§	
Defendants,	§	
	§	CASE NO. 2:21-CV-00317-JRG
NOKIA OF AMERICA CORP., AND	§	(Member Case)
	§	
ERICSSON INC.	§	
	§	
Intervenor-Defendants.	§	

<u>DEFENDANTS' MOTION FOR SUMMARY JUDGMENT FOR NON-INFRINGEMENT OF U.S. PATENT NO. 9,548,775</u>

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Exhibit	Title	
Ex. 1	U.S. Patent No. 9,548,775 ("'775 patent")	
Ex. 2	8/10/2022 Finesse Disclosure of Asserted Claims	
Ex. 3	Excerpts from Expert Report of Dr. Jonathan Wells – Infringement of U.S.	
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Ex. 4	8/18/2016 Response to Office Action	
Ex. 5	Excerpts from 10/4/2022 Deposition of Dr. Jonathan Wells ("Wells Tr.")	
Ex. 6	Excerpts from Specification ("	
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	")	
Ex. 10	Excerpts from SW Algorithm Specification	
	("	
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	")	
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I. INTRODUCTION

The Court should grant Defendants summary judgment of non-infringement for the '775 patent. The undisputed facts show that the key limitation in the claims—added during prosecution to avoid the prior art—is not found in the accused products. Every asserted claim of the '775 patent requires that *three* signals—S1, S2, and S3—be used to generate the claimed intermodulation product cancellation signals (ICSs). After full discovery, Finesse makes no attempt to (and cannot) show that the accused products include the claimed three signals S1, S2, and S3 for generating ICSs. Indeed, Finesse's own expert admits that most of the accused products only include two relevant signals and some only include a single relevant signal. Finesse also does not contend that the doctrine of equivalents applies to this claim element, and it cannot do so due to Finesse's amendment during prosecution to overcome the prior art.

To fashion an infringement theory, Finesse instead ignores the claims' clear requirement of three signals. When Defendants complained that Finesse's infringement contentions did not identify the three signals during discovery, Finesse responded that only a single signal can satisfy the claims, despite the claim language. Finesse's infringement expert adopted this meritless view in his expert report, opining that for the accused products with only a single signal, that signal should simply count as three signals, and for the accused products with only two signals, one of those two signals should simply be counted twice, to meet the three signal requirement of the claims. This opinion is contrary to the plain language of the asserted claims and unsupported by the patent specification.

Finesse and its expert cannot ignore the clear requirement of the asserted claims to have three signals—not two and not one. The Court should enter summary judgment of non-infringement.

II. STATEMENT OF THE ISSUES TO BE DECIDED BY THE COURT

Whether Defendants are entitled to summary judgment of non-infringement because there is no genuine dispute of material fact that none of the accused products include the three signals S1, S2, and S3, as required by every asserted claim.

III. STATEMENTS OF UNDISPUTED MATERIAL FACTS

A. The Asserted Patent

- 1. Finesse asserts infringement of claims 1, 4, 9, 16, 21, 23, 29, and 36 of the '775 patent. *See* Ex. 2, 8/10/2022 Finesse Disclosure of Asserted Claims; Ex. 3, Wells Rep. ¶¶ 2-3.
- 2. Defendants asserted the defense of non-infringement for each of these claims. Dkt. 34 at 12 ("Nokia does not infringe any claim of the Asserted Patents in any manner under 35 U.S.C. § 271, literally or under the doctrine of equivalents, directly or indirectly.") (AT&T case); Dkt. 35 at 12 (same) (Verizon case); Dkt. 14 at 9 ("AT&T does not infringe any claim of the Asserted Patents in any manner under 35 U.S.C. § 271, literally or under the doctrine of equivalents, directly or indirectly.") (AT&T Case); Dkt. 18 ("Verizon does not and has not infringed any valid and enforceable claim of the '134 and '775 patents (collectively, the "Patents") literally, under the doctrine of equivalents, directly, indirectly (including contributorily or by inducement), jointly, or via any other mechanism of liability.") (Verizon Case).

3. Claim 1 of the '775 patent recites:

1. A method for performing interference cancellation in a receiver, with a transmitter and the receiver being co-located with each other, the method comprising:

generating intermodulation product (IMP) cancellation signals (ICSs) to cancel passive IMPs in the receiver, continuously and near real time, using copies of transmitter signals of the transmitter, wherein the passive IMPs are generated in passive transmitter components of the transmitter and receiver components of the receiver after a high powered amplifier (HPA) and transmitter filter of the

transmitter, wherein the transmitter filter is coupled between the HPA and an antenna used by the transmitter, wherein generating the ICSs is based on a power series description of a non-linear process for generating the IMPs, and includes generating an n-th order ICS by, given three signals S1, S2 and S3, digitally multiplying and filtering S1×S1×S2 and S1×S2×S3 and S1×S1×S3 and S2×S2×S3 and S1×S3×S3 and S2×S3×S3, where n is an integer.

- 4. Every asserted claim of the '775 patent requires generating ICSs "by, given three signals S1, S2 and S3, digitally multiplying and filtering S1×S1×S2 and S1×S2×S2 and S1×S2×S3 and S1×S1×S3 and S2×S2×S3 and S1×S3×S3 and S2×S3×S3." *See, e.g.*, '775 Patent, Claim 1.
 - 5. This claim limitation was added during prosecution of the '775 patent.

IN THE CLAIMS

A complete list of claims is presented below with amendments marked up: 1.-64. (Cancelled)

65. (Currently Amended) A method for performing interference cancellation in a receiver, with a transmitter and <u>the</u> [a] receiver being co-located with each other, the method comprising:

generating intermodulation product (IMP) cancellation signals (ICSs) to cancel passive IMPs in the receiver, continuously and near real time, using copies of transmitter signals of the transmitter, wherein the passive IMPs are generated in passive transmitter components of the transmitter and receiver components of the receiver after a high powered amplifier (HPA) and transmitter filter of the transmitter, wherein the transmitter filter is coupled between the HPA and an antenna used by the transmitter, wherein generating the ICSs is based on a power series description of a non-linear process for generating the IMPs, and includes generating an n-th order ICS by, given three signals S1, S2 and S3, digitally multiplying and filtering S1 x S1 x S2 and S1 x S2 x S2 and S1 x S2 x S3 and S1 x S1 x S3 and S2 x S3 x S3, where n is an integer.

Ex. 4, 8/18/2016 Response to Office Action at 2.

6. The applicant proceeded to distinguish prior art based on this claim amendment.

Futhermore, Filipovic does not disclose generating an n-th order ICS by, given three signals S1, S2 and S3, digitally multiplying and filtering S1 x S1 x S2 and S1 x S2 x S2 and S1 x S2 x S3 and S1 x S1 x S3 and S2 x S3 and S1 x S3 x S3 and S2 x S3, where n is an integer.

Id. at 19.

B. Nokia's Accused Products

- 7. Nokia makes and sells certain radio products that address various types of interference, including specific types of intermodulation products. *See* Ex. 3, Wells Rep. ¶¶ 104-120.
- 8. Finesse's technical expert regarding infringement, Dr. Wells, identifies the accused products as Nokia remote radio heads incorporating

 "1 Id.

 9. Nokia has sold remote radio heads to both Verizon and AT&T that incorporate

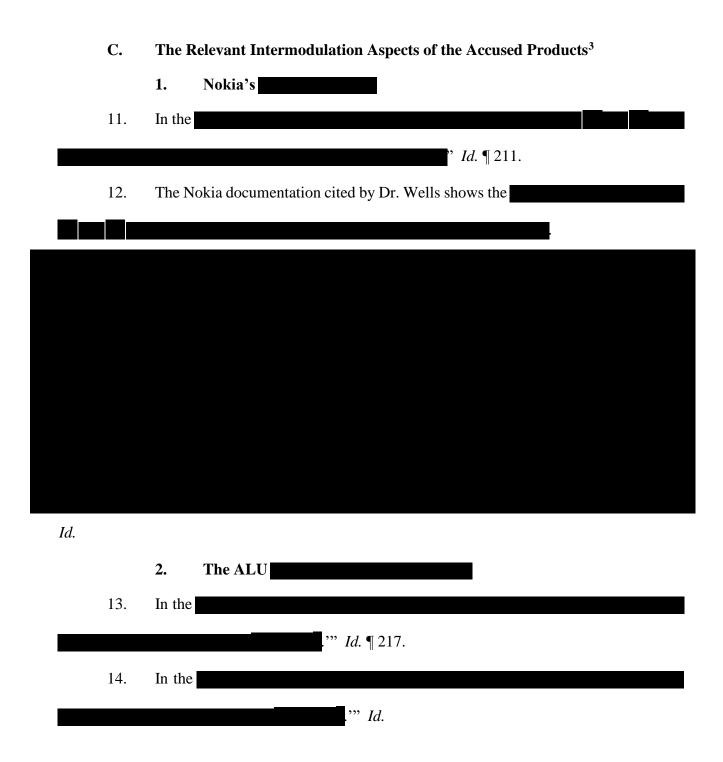
 Id.

 10. Finesse has not identified sales of the AHPB radios incorporating

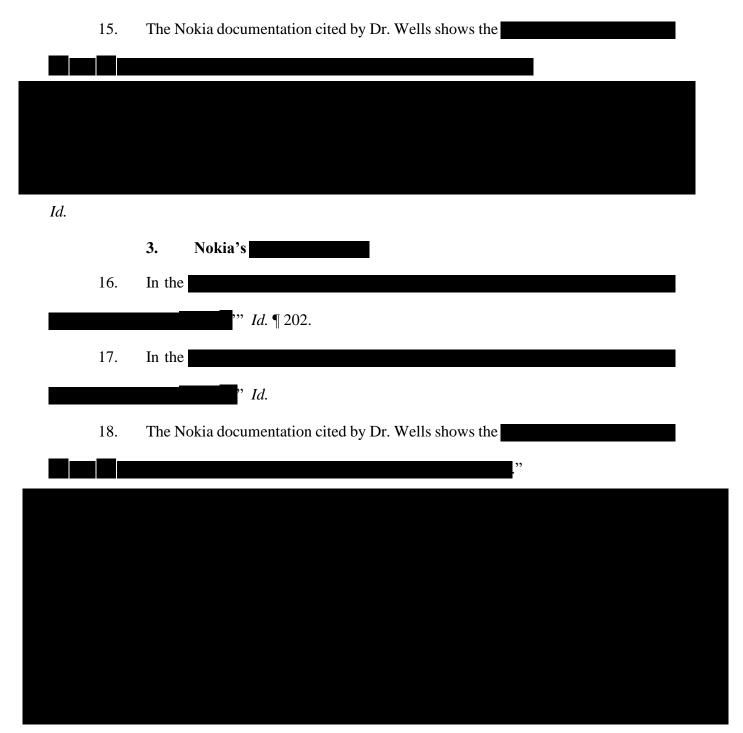
 to either Verizon or AT&T.² See id. ¶¶ 109, 119.

¹ Finesse moved for leave to amend its infringement contentions at the close of fact discovery to add contentions against the Alcatel Lucent ("ALU") UHFA (AB) product. Dkt. 107. Defendants opposed. Dkt. 112. Defendants show with this motion that the ALU product cannot infringe any of the asserted claims, but Defendants do not admit that it is properly accused in this case. *See id.*

² Because the is accused of infringement by Finesse, despite no allegations that it has been incorporated into any products purchased by Defendants AT&T or Verizon, Defendants move for summary judgment regarding those products as well.



³ While Finesse's understanding of the accused products is seriously flawed, where cited, Defendants accept Finesse's expert's description of the accused products (set forth below) for purposes of this summary judgment motion only. *See* Fed. R. Civ. P. 56(g) advisory committee notes to 2010 Amendment.



Id. (annotation in Dr. Wells' Report)

IV. LEGAL STANDARD

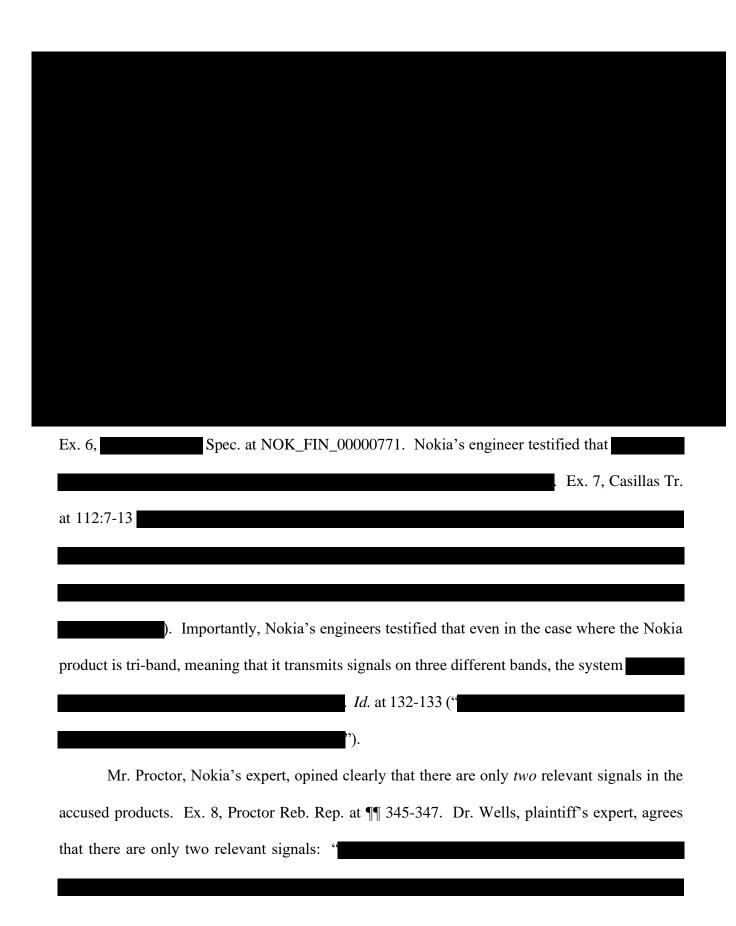
Summary judgment must be granted "if the movant shows that there is no genuine dispute as to any material fact and the movant is entitled to judgment as a matter of law." Fed. R. Civ. P.

56(a). "[T]he mere existence of some alleged factual dispute between the parties will not defeat an otherwise properly supported motion for summary judgment." *Scott v. Harris*, 550 U.S. 372, 380 (2007) (alterations in original, citation omitted). As a result, "[f]actual disputes that are irrelevant or unnecessary" will not defeat a summary judgment motion. *Anderson v. Liberty Lobby Inc.*, 477 U.S. 242, 248 (1986). Further, an asserted patent claim cannot be infringed, "as a matter of law, if even a single limitation is not satisfied." *Digital Biometrics, Inc. v. Identix, Inc.*, 149 F.3d 1335, 1349 (Fed. Cir. 1998).

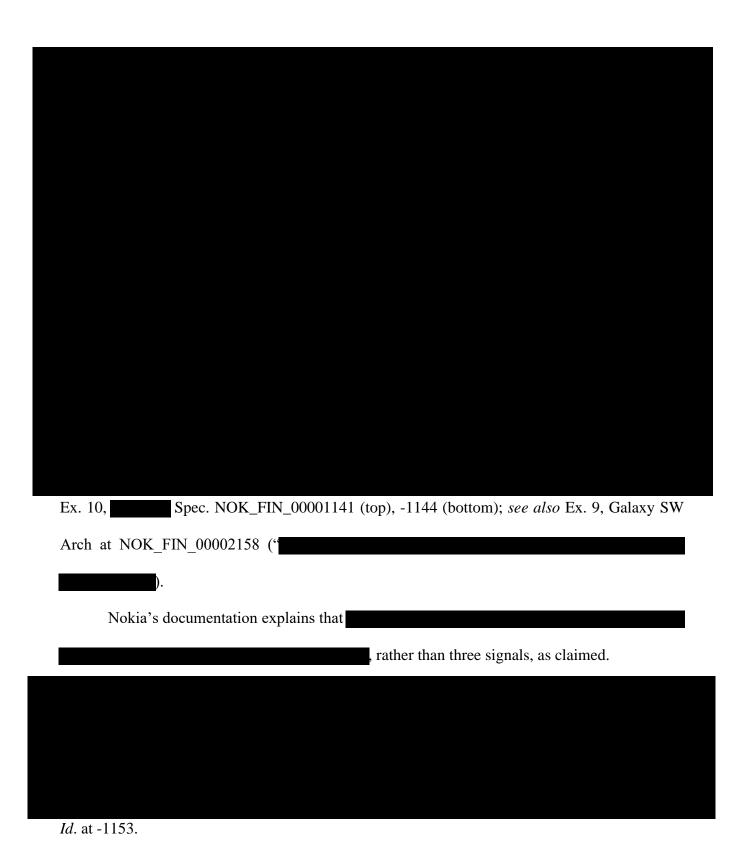
V. ARGUMENT

This Court should grant summary judgment of non-infringement with respect to the asserted claims of the '775 patent because the accused Nokia products do not fall within the scope of any asserted claim. As shown below, there is no evidence that the accused Nokia products use three signals, as claimed, to generate intermodulation product cancellation signals. Indeed, Finesse and its expert admit that there are only two inputs signals in some of the accused products, and only a single input signal in the remainder. In fact, Finesse's expert admitted that if the claims require three signals, then he would have to "re look at [his] analysis" and "reform [his] opinions." *See, e.g.*, Ex. 5, Wells Tr. at 224:22-225:22. Finesse and its expert argue that they can double (or triple) count the existing signals in order to meet the claim's requirement of three signals. But reading out claim limitations cannot create a genuine dispute of material fact, and therefore this issue is ripe for summary judgment.

A.	Nokia's	
T 41		
In the		



). Dr. Wells cites to
Jokia documentati	on in support of his opinions, but those d	locuments uniformly show that there
re at most two rele	evant signals in the accused products:	
x. 9,	. at NOK_FIN_00002163 (outlined in red); see
lso id. at -2164		
	(emphasis added).	
B. Nok	ia's	
D. NUK	14 5	
In the		



Dr. V	Wells, plaintiff's expert, cites to the same documents excerpted above.	There is no
genuine disp	ute of fact, however, that those documents show that	
	. Wells Rep. ¶¶ 202-209.	
С.	The ALU	
C.		
The		
		. Proctor
		. Troctor
Reb. Rep. ¶	364.	
Ex. 11,	Spec. at NOK_FIN_00018578. Dr. Wells cites to	o the same
documentation	on and again concedes that See Wells	Rep. № 217,
219; see also	Wells Tr. at 215:18-20	
).	
Т		
In su	m, there is no dispute of fact that each of the accused modules—	

D. The Accused Products Do Not Infringe Because the Claims Require Using Three Signals for Interference Cancellation

Each of the asserted claims of the '775 patent requires generating ICSs "by, given three signals S1, S2 and S3, digitally multiplying and filtering S1×S1×S2 and S1×S2×S2 and S1×S2×S3 and S1×S1×S3 and S2×S2×S3 and S1×S3×S3 and S2×S3×S3." *See, e.g.*, '775 Patent, Claim 1. Accordingly, each claim requires three distinct signals—S1, S2, and S3.

Dr. Wells simply ignores this claim requirement in order to offer an opinion of infringement. Instead, Dr. Wells opines that one of the input signals, for example the input signal mapped to S1, can simply *also* be the input signal S2. The chart below from Dr. Wells' expert report illustrates this sleight of hand:



Ex. 5, Wens Rep. \parallel 215, see also ia. \parallel 207, 209, 215, 221, 225. Although D1. Wens admits that

. This is untenable.

It is basic patent law that "Where a claim lists elements separately, 'the clear implication of the claim language' is that those elements are 'distinct component[s]' of the patented invention." *Becton, Dickinson & Co. v. Tyco Healthcare Grp, LP*, 616 F.3d 1249, 1254 (Fed. Cir. 2010) (quoting *Gaus v. Conair Corp.*, 363 F.3d 1284, 1288 (Fed. Cir. 2004)); *see also Engel Indus., Inc. v. Lockformer Co.*, 96 F.3d 1398, 1404–05 (Fed. Cir. 1996) (concluding that where a claim provides for two separate elements, a "second portion" and a "return portion," these two elements

"logically cannot be one and the same"); *HTC Corp. v. Cellular Commc'ns Equip.*, *LLC*, 701 F. App'x 978, 982 (Fed. Cir. 2017) ("The strongest evidence for this separation is the claim language itself, which plainly recites two different structures. . . . The separate naming of two structures in the claim strongly implies that the named entities are not one and the same structure."); *SandBox Logistics LLC v. Proppant Express Inv. LLC*, 813 Fed. App'x 548, (Fed. Cir. 2020) ("That the 'structural support members' are recited separately from the 'end walls' and 'side walls' implies that the 'structural support members' are a structurally distinct component.").

There is no evidence to the contrary, and therefore the Court "must presume that the use of ... different terms in the claims connotes different meanings." *CAE Screenplates, Inc. v. Heinrich Fiedler GmbH & Co.*, 224 F.3d 1308, 1317 (Fed. Cir. 2000); *Huawei Tech Co. v. Verizon Commc'ns, Inc.*, No. 2:20-CV-00030-JRG, 2021 WL 150442, at *9 (E.D. Tex. Jan 15, 2021) (Gilstrap, J.) ("The two buffers are separately recited in the claims. Thus, the plain meaning based on the claim language reflects that the buffers are necessarily distinct structures."). Courts in this district have even held that specific *signals*, when claimed separately, "are distinct from one another." *Super Interconnect Tech LLC v. Huawei Device Co.*, No. 2:18-CV-463-JRG, 2020 WL 60145, at *7 (E.D. Tex. Jan. 6, 2020) ("The specification disclosures cited by Defendants are simply consistent with what is already apparent in the claim language set forth above, namely that clock, data, and control signals are distinct from one another.") (Payne, M.J.).

To the extent that Finesse claims that the specification supports an argument that S1, S2, and S3 can be the same signal, this argument is meritless. The '775 patent specification explains that "the ICS signals are created in *one of two ways*." Ex. 1, '775 patent at 12:42-43 (emphasis added). In one case, "[i]f the transmitter will have only a few signals, then the individual signals are digitally multiplied together to create the ICS signals." *Id.* at 12:43-45. Alternatively, "If there

are a large number of small signals creating an IMP floor, then the composite digital signal samples ... are cubed." *Id.* at 12:50-52. These are two independent methods of ICS generation, applicable in different circumstances. The asserted claims are all plainly directed to the first case, wherein "[i]f the transmitter will have only a few signals, then the individual signals are digitally multiplied together to create the ICS signals." *Id.* at 12:43-45; *compare with* '775 patent, Claim 1 ("generating an n-th order ICS by, given three signals S1, S2 and S3, digitally multiplying and filtering S1×S1×S2 and S1×S2×S2 and S1×S2×S3 and S1×S1×S3 and S2×S2×S3 and S1×S3×S3").

Even Finesse's expert, Dr. Nettleton, agrees. Ex. 12, Nettleton Rough Tr. at 146:16-147:9 ("Q. Okay. The first way is if the transmitter has only a few signals, then the individual signals are digitally multiplied together to create the ICF signals; is that correct?" A. Yes. Q. And the second way is described in the next paragraph and it says, 'If there are large number of small signals creating infloor [sic], then the composite digital signals from 4023 are cubed and the result filtered to pass only the signals that be will be in the pass strand transmitter.' Do you see that? A. I see it. Q. Are these methods equivalent to one another? A. There are two alternatives.); 147:15-20 ("Q. In Claim 1 of the '775 Patent where it describes digitally filtering and multiplying S1, f2 [sic] and S 3 is that claim in the alternative where the transmitter will only have a few signals? A. Yes. Three is a few."). Although the inventor disclosed two embodiments for creating ICSs, the asserted claims cover only one. See Kyocera Senco Indus. Tools Inc. v. Int'l Trade Comm'n, 22 F.4th 1369, 1382 (Fed. Cir. 2022) ("The patentees were free to claim only the latter embodiment."); TIP Sys., LLC v. Phillips & Brooks/Gladwin, Inc., 529 F.3d 1364, 1373 (Fed. Cir. 2008) ("[T]he mere fact that there is an alternative embodiment disclosed in [a] patent that is not encompassed by [a] claim construction does not outweigh the language of the claim, especially when the court's construction

is supported by the intrinsic evidence."); *PPC Broadband, Inc. v. Corning Optical Communications RF, LLC*, 815 F.3d 747, 755 (Fed. Cir. 2016) (rejecting the proposition that "each and every claim ought to be interpreted to cover each and every embodiment"); *SIMO Holdings Inc. v. Hong Kong uCloudlink Network Tech. Ltd.*, 983 F.3d 1367, 1378 (Fed. Cir. 2021) (collecting cases).

VI. CONCLUSION

There is no dispute of fact that the accused systems only use, at most, two input signals to generate the alleged "intermodulation product cancellation signals." Because the claim requires the use of three signals to generate the intermodulation product cancellation signals, the accused products cannot infringe any of the asserted claims. For the foregoing reasons, Defendants respectfully request that this motion for summary judgment for non-infringement of the '775 patent be granted.

DATED: October 11, 2022 Respectfully submitted,

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CERTIFICATE OF SERVICE

I hereby certify that counsel of record are being served this 11th day of October, 2022, with a copy of this document via email.

By: /s/ Brianne M. Straka
Brianne M. Straka

CERTIFICATE OF AUTHORIZATION TO FILE UNDER SEAL

I hereby certify that the foregoing document is being filed under seal pursuant to the Protective Order entered in this matter.

By: /s/ Brianne M. Straka
Brianne M. Straka